Statement of

David A. Swanson
Professor of Sociology
Director of the Center for Population Studies
Chair of the Department of Sociology & Anthropology
University of Mississippi

before the
Subcommittee on Federalism and the Census
Oversight Hearing
Committee on Government Reform
U.S. House of Representatives

Hearing Topic: "Two Plus Two Should Never Equal Three:
Getting Intercensal Population Estimates Right the First Time."
Wednesday, 6 September 2006
Room 2247 Rayburn House Office Building

Introduction

Mr. Chairman Turner and honorable members of Congress, my name is David A Swanson. My Ph.D. is in sociology with a concentration in population studies. I do research in the area of applied demography and teach at the University of Mississippi, where I am a professor of sociology and also serve as the chair of the Sociology & Anthropology Department and as the Director of the Center for Population Studies. I have been involved in applied demography for more than 30 years. During that time I have not only learned much about the Census Bureau, its procedures, dedicated and highly-skilled people, and products, but also about the practice of applied demography.

My time as an applied demographer includes nearly four years with the Population, Enrollment, and Economic Studies Division of the Washington State Office of Financial Management, where between 1976 and 1980 I learned the basics of the craft of applied demography by doing city and county local censuses, developing state, county, municipal, and special area estimates and generating population forecasts. While working in Washington State, I had the privilege of seeing how one of the country's best state demographic centers worked. I gained an appreciation of its usefulness to the state, its governmental units, its private sector, and its residents. I also gained a deep appreciation not only for the importance of technical, administrative and "people" skills to the operation of a first class center, but also of the critical role played by the political process in developing the laws and administrative regulations required to build and maintain such an operation in an environment of continuous quality improvement.

In addition to my time in Washington State, I also have three years of service as the Alaska State Demographer, three years as service as the Arkansas State Demographer, and over ten years of service as a Consulting Senior Scientist for Science Applications International Corporation during the site characterization phase of the Yucca Mountain High Level Nuclear Waste Repository north of Las Vegas, Nevada. I

have organized and supervised many special censuses, developed annual population estimates, and done population and school enrollment forecasts. My work in applied demography spans several countries, nine states, 100s of counties and cities, and numerous special areas such as transportation planning areas and school districts.

Observations on the Census Bureau's Estimation Program

Drawing on my experience, I am pleased to provide my observations on the Census Bureau's estimation program.

My testimony covers three areas: (1) the major challenge faced by the Census Bureau in providing timely, accurate, and cost-effective estimates; (2) A suggestion for dealing with this challenge; and (3) Issues presented by my suggestion that need to be resolved. I conclude my presentation with a summary.

Before I start I note that many of my observations come from papers I provided to the subcommittee staff.

1. The Major Challenge Faced by the Census Bureau in Providing Timely, Accurate, and Cost-effective Estimates

Fueled by the proliferation of federal programs distributing benefits using decennial census data and the knowledge that federal courts were now willing to consider apportionment cases, several lawsuits were filed against the Census Bureau following the 1970 census, a practice that has proliferated over the past thirty years and now threatens to move into other areas of the Census Bureau's work such as the annual estimates program. The reason for much of this conflict is clear: Billions of federal dollars are allocated each decade to states and local governments using census counts and inter-censal estimates and these funds are allocated in a "zero-sum" fashion. This situation will lead to even more litigation and other forms of conflict as the states, cities, and counties struggle to get their "populations" counted in the decennial censuses and estimated during the inter-censal periods.

This atmosphere of conflict is the major challenge facing the Census Bureau's decennial census and inter-censal estimates programs. Within the Census Bureau it not only serves to foster a "defensive" working environment, but also takes important resources away from production and research activities. As the defensive climate within the Bureau hardens, states and local governments feel even more frustration in their attempts to work cooperatively with the Bureau and turn to more confrontational forms of communication. This is particularly attractive for the local governments in states lacking strong demographic centers.

2. A Suggestion for dealing with the Challenges Facing the Census Bureau

Breaking with the past, the Census Bureau decided to retain and update its Master Address File – the MAF - for the 2000 Census. The MAF is a critical resource for the American Community Survey and its retention facilitates the planning and conduct of an accurate and cost-effective 2010 census. The continuously updated MAF and the related TIGER improvements are a fundamental element of success for an accurate 2010 census.

Importantly, the continuously updated MAF also represents an untapped resource for inter-censal estimates. It leads directly to the potential to have timely, accurate, and cost-effective estimates done using a method that is not only simple to apply and explain, but one that offers the potential for a meaningful role for states and local governments to play in the development of these estimates. What is this method? The well-known Housing Unit Method (HUM). To be successful, however, this system needs a nationwide system of state demographic centers that participates in a meaningful partnership with the Census Bureau. The state demographic centers, in turn, would need an active and meaningful partnership with the local governments within their respective states.

MAF-based population estimates would contribute toward having more timely, comprehensive, and internally consistent demographic and housing data for the U. S. as a whole and its sub-areas. In regard to geography, I note that MAF- based data are extremely flexible in that they can be geo-coded to a specific location (as opposed to being assigned to an area defined by administrative or statistical boundaries). This also means that the MAF-based system can be overlaid with other features using GIS capabilities. The TIGER street address file comes to mind first in this regard.

This approach to inter-censal population estimation would lead to an entirely new way of looking at the concept of a "small area," in that boundaries could be drawn that are much finer than those allowed by the census defined block. This would allow much higher precision in defining areas for purposes of marketing, site location. Once up and running, this would also allow for greater ease in producing a consistent time series for areas in which administrative boundaries changed over time. The estimates would also provide population controls for the American Community Survey.

3. Issues that need to be resolved.

Turning now to the obstacles associated with my proposal for population estimates based on the MAF, I begin with the issue of confidentiality. The issue of confidentiality is not an insignificant problem. However, I believe that this problem is not insurmountable in regard to my proposal for a MAF-based population estimation system. The National Research Council has issued recommendations to reconcile access and confidentiality and the Census Bureau itself has appointed a Chief Privacy Officer and worked to put effective procedures in place regarding this reconciliation. Thus, I believe that the Census Bureau is capable of creating a national MAF-based population estimation system that meets confidentiality concerns.

Another important obstacle is the financial cost of developing a national system of state demographic centers such that each state center functions according to accepted standards. States need to shoulder a share of these costs. After all, it is to their benefit to have high quality state demographic centers. As such, I propose that a funding mechanism involving federal-state matching funds be considered.

What about accuracy? Can the proposed MAF-based population estimation system provide accurate data? In a recent report, the GAO identified MAF/TIGER problems that needed to be solved in order to have a good census in 2010. These problems include: (1) resolving address related issues such as duplication, omission, deletion, and incorrect locations in the MAF; and (2) implementing GPS-based geo-coding of housing units. These same two problems represent sources of error in the proposed MAF-based system.

Consequently, if the Census Bureau solves these problems in regard to the 2010 census, it will do much in regard to the accuracy of the proposed MAF-based population estimation system.

There are other problems already known to Census Bureau staff and others in regard to using the Housing Unit Method of population estimation that would affect the accuracy of a MAF-based population estimation system, such as tracking new housing units, converted housing units, and deleted housing units. One important problem worth mentioning here involves seasonal populations and seasonal housing. In areas with substantial seasonal changes in population, great care must be taken to get an estimate of the de jure (census-defined) population. Since the implementation of the ACS, this problem is compounded. This is because of differences between the ACS and the decennial census in regard to what constitutes the de jure population. As such, an accurate MAF-based population estimation system will need to deal with the seasonal housing issue and the differences in the definition of the de jure population found in the ACS and the decennial census.

Given the experience being gained by Census Bureau in regard to the MAF/TIGER system, the widespread knowledge use of the Housing Unit Method, and the capabilities of the best of the State Demographic Centers – Alaska, California, Florida, Texas, and Washington, for example, I believe that the timeliness and accuracy of MAF-based population estimates based on a comprehensive system of state demographic centers functioning at the level of the best state demographic centers would be sufficient for purposes of resource allocation, research, decision-making, and planning for the national, state and local levels. I believe that it would also prove to be cost-effective and equitable. I also note that the conflict-free system used in Finland to produce annual population data has the type of state-national participation and cooperation that I propose. I believe that this arrangement goes a long way toward keeping the Finnish system of producing annual population data both equitable and conflict free even though, as is the case in the United States, these data are used to distribute funds and other resources to regional and local governments in a zero-sum fashion.

With the exception of the issues of confidentiality, all of the challenges facing the development of a national MAF-based population estimation system are in the form of costs, technical problems, or a combination of both. The major technical tasks in building and maintaining a MAF-based estimation system come down to two areas - address data collection and MAF/TIGER update. The feasible way to effect a solution to these problems is to enhance the federal-state-local cooperative programs already part of Census Bureau activities such that local entities are compensated for helping to maintain the system. There are data collection activities in the United States that already follow this model, such as the vital registration system.

Conclusion

In conclusion, what I am proposing is that the Master Address File be more fully exploited by using the Housing Unit Method as a universal means of population estimation for all areas of geography, administrative and statistical, and that state demographic centers be developed to a uniform level of capability. I suggest that this proposal be supported by state-federal matching funds as full-fledged partners in this system. This would lead not only to timely, accurate and cost-effective inter-censal population estimates, but also to greater equity in that there would be a uniformly higher level of demographic human capital in the country.

Thank you. I would be happy to answer any questions from members of the subcommittee.